

# A PILOT STUDY TO ASSESS MEDICAL STUDENTS' PERCEPTION OF THEIR OSTEOPATHIC MANIPULATIVE THERAPY EDUCATION

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## ABSTRACT

Osteopathic manipulative therapy (OMT) is a practical outworking of the osteopathic principles and one of the foundations of the osteopathic physician's training. However, despite this, the utilization of OMT is in decline.<sup>1</sup> Previous studies have demonstrated correlations between a medical student's propensity to utilize OMT in future practice with both their OMT exposure prior medical school and the training that they received throughout medical school in preclinical and clinical settings.<sup>2,3,4</sup> The goal of this study was to determine how the current delivery of OMT is positively and negatively impacting a student's perception and future use of OMT. This was accomplished by creating a 13-question survey utilizing Qualtrics. The survey link was disseminated through email by the clinical education department at two osteopathic medical schools to students in all four class years. We yielded a response rate of 18.3% for a sample distribution across year of OMS I (31.7%), OMS II (21.3%), OMS III (24.6%) and OMS IV (22.5%). Nearly half of students (42.98%) indicated that they were satisfied with their pre-clinical OMT training and 46.28% reported being "somewhat confident" in their ability to treat with OMT. Students' perception was positively influenced by hands on in person training and prior medical experiences. Perception was negatively impacted by virtual learning experiences and preclinical lecture hours. Overall, students who had specifically chosen an osteopathic school due to the availability of OMT, those that had higher satisfaction in their preclinical education ( $p < 0.01$ ) or 3<sup>rd</sup> year clerkship ( $p < 0.01$ ), and those that indicated they were confident in their skillset  $p < 0.01$  had a higher likelihood of using OMT in the future. Thus, a student's OMT education should be geared towards hands on and clinical experiences to increase confidence level and their future use of OMT in their practice. Additional studies with a larger sample size and response rate are indicated to investigate the generalizability of our results with the goal of optimizing OMT education in medical school.

## OBJECTIVE

The goal of this pilot study was to assess how the various aspects of the OMT training curriculum influenced a medical student's perception of OMT and their intent to use the treatment modality as a future practicing physician.

## INTRODUCTION

Osteopathic manipulative therapy (OMT) is a practical outworking of the osteopathic principles and one of the foundations of the osteopathic physician's training. Despite this, the utilization of OMT is in decline in D.O. Practitioners.<sup>1</sup> The decision whether to use OMT in their future practice appears to be multifactorial and likely includes several aspects of a student's attitude to their education during medical school training. Previous studies have demonstrated correlations between a medical student's propensity to utilize OMT in future practice with both their OMT exposure prior medical school and the training that they received throughout medical school in preclinical and clinical settings.<sup>2,3,4</sup>

## STUDY DESIGN

A 13-question survey was created utilizing Qualtrics. The survey link was disseminated through email by the clinical education department at two osteopathic medical schools to students in all four class years ( $n=1320$ ). The survey contained multiple choice and free response questions regarding year in school, type of training received, if OMT played a role in their choice of medical school, confidence in OMT skills, what they regarded as positive or negative factors in their education and their intent of utilizing OMT in future practice. The survey was open for one month. During this month, a reminder email was sent at the two-week mark and on the last day the survey was open. Results were collected through Qualtrics and analyzed with R.<sup>5</sup>

## Demographics

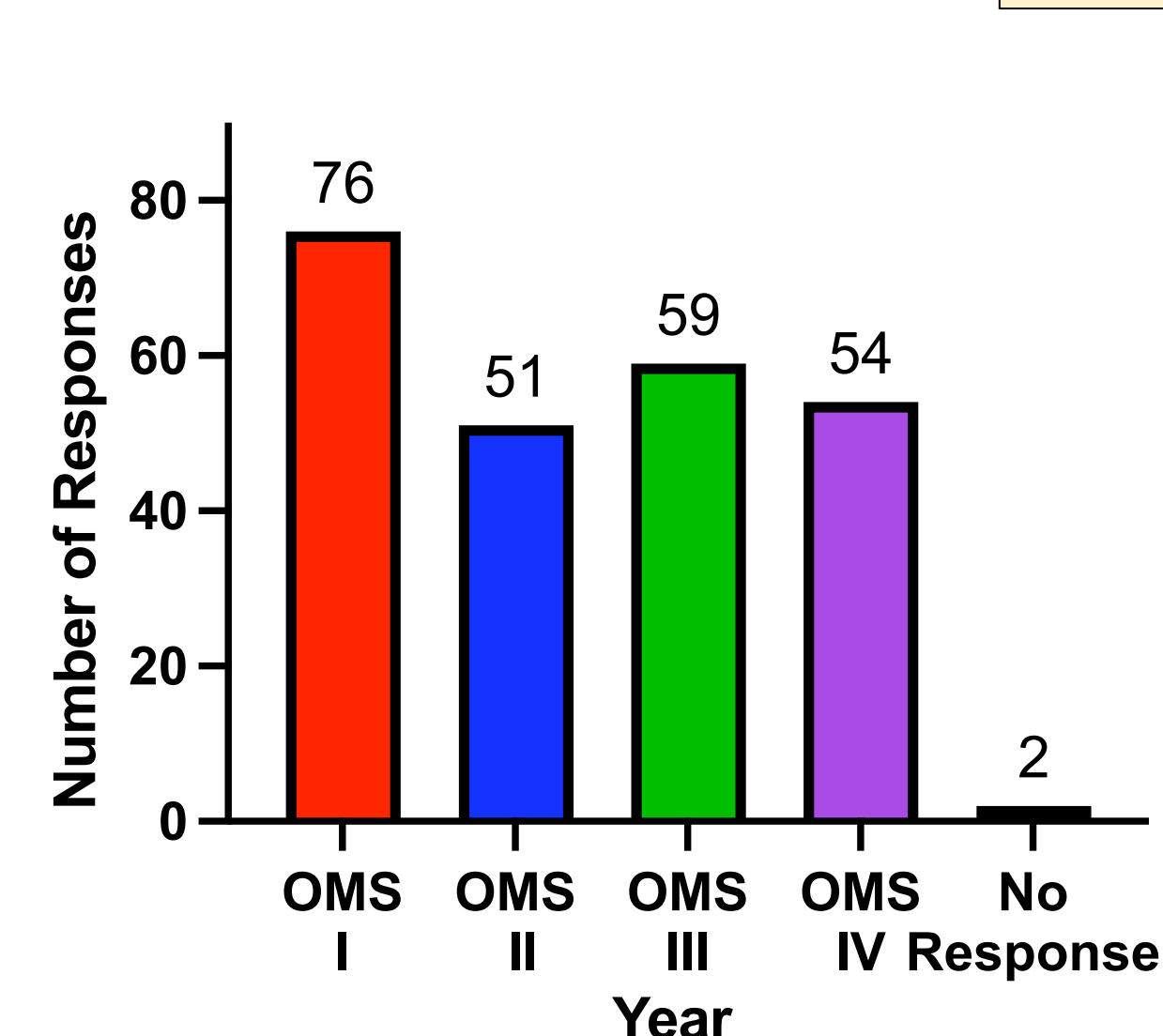


Fig. 1: Number of survey respondents within each year of a Doctor of Osteopathy Degree

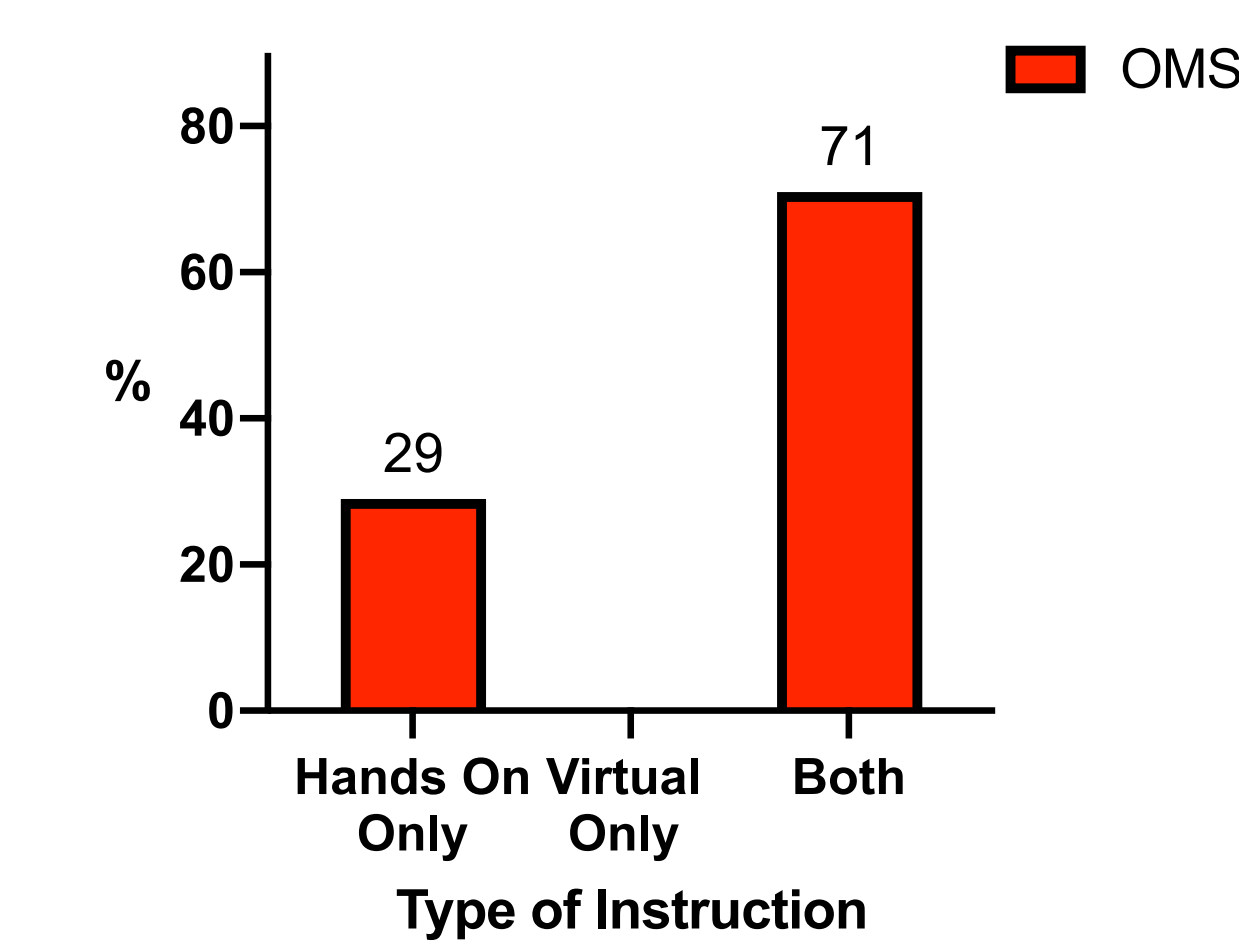


Fig 2: Percent of students who received instruction virtually, hands-on or both.

## Survey Results

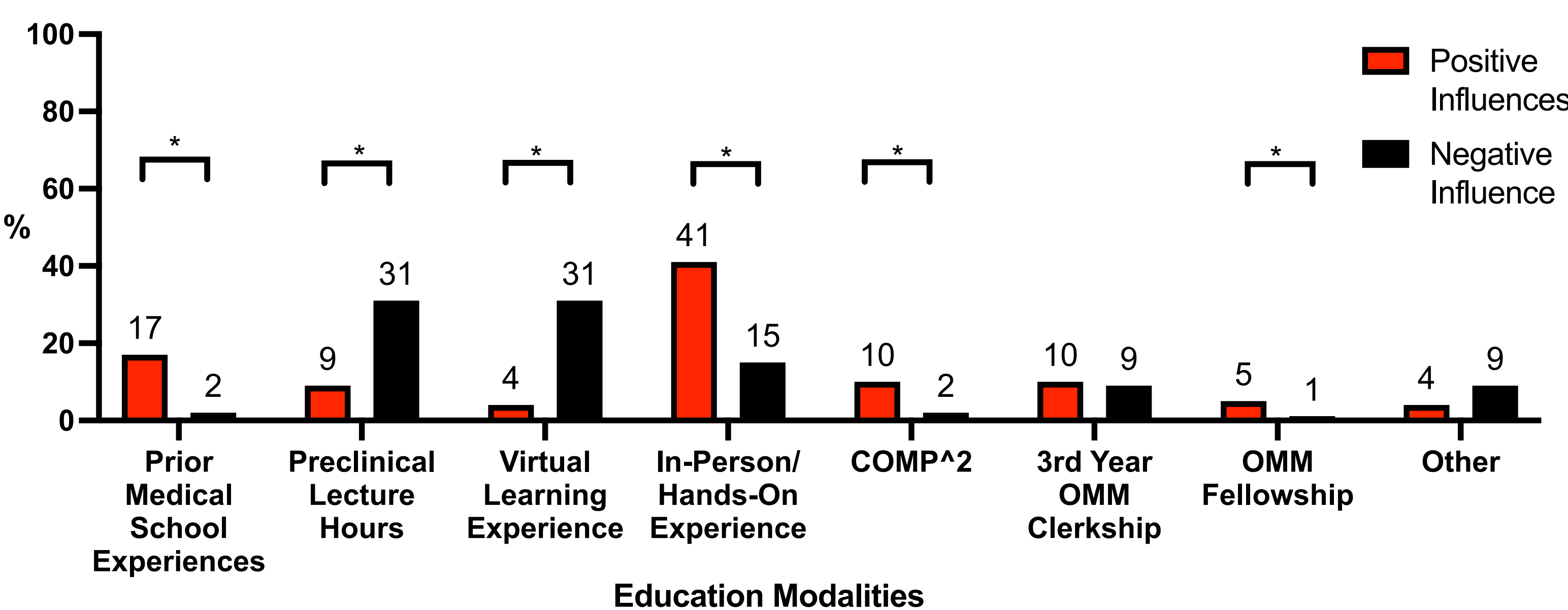


Figure 3: Students were asked to select the educational delivery models that held a positive or negative influence on their perception of OMT. Prior to medical school experiences, In-Person/hands on instruction, the most positive responses among classes. While preclinical and virtual learning experiences had the greatest negative influence on students. (\* $p < 0.0001$ )

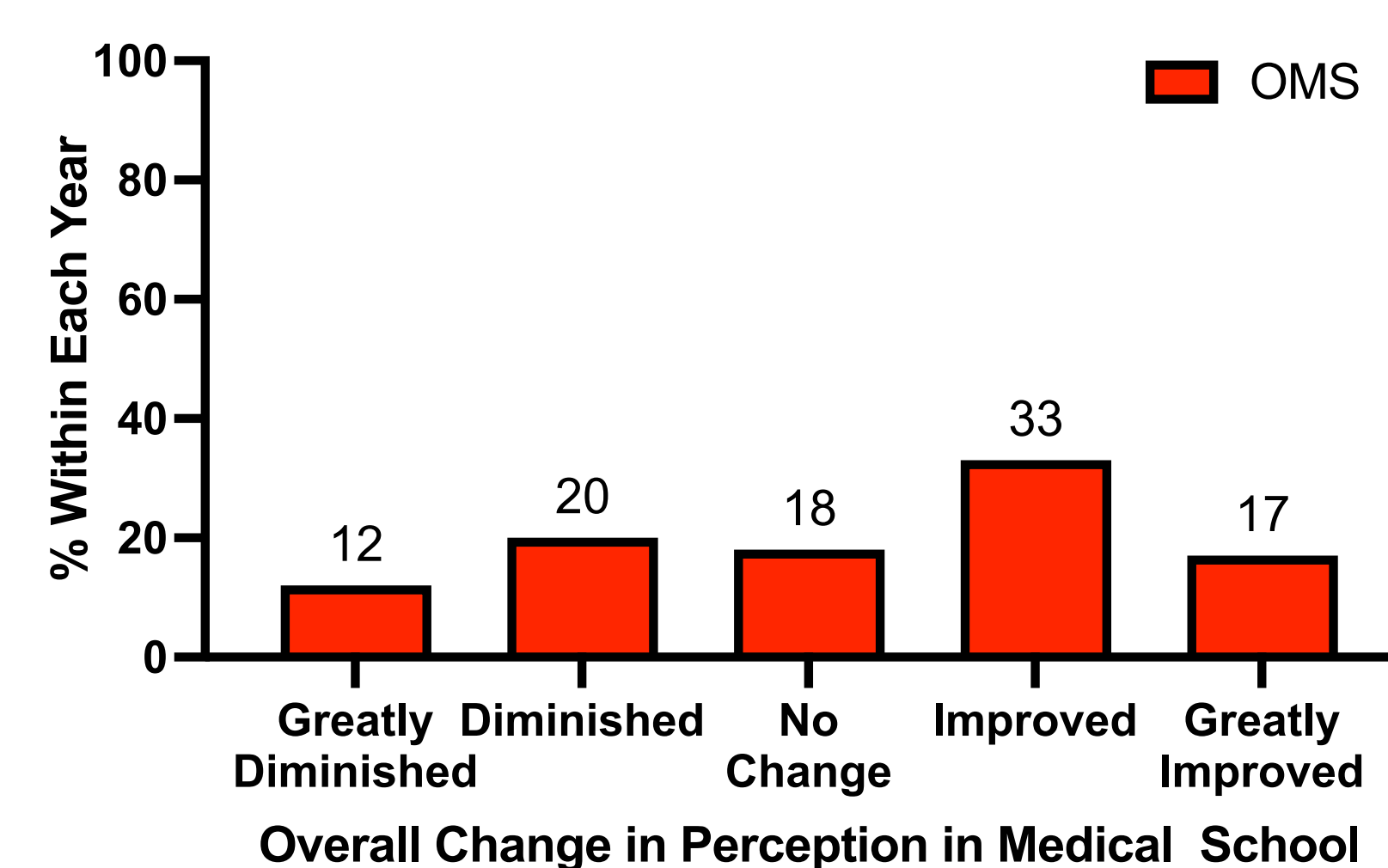


Fig. 4: Students' years 1-4 self reported change in perception of OMT during their education. No significant change between years was reported.

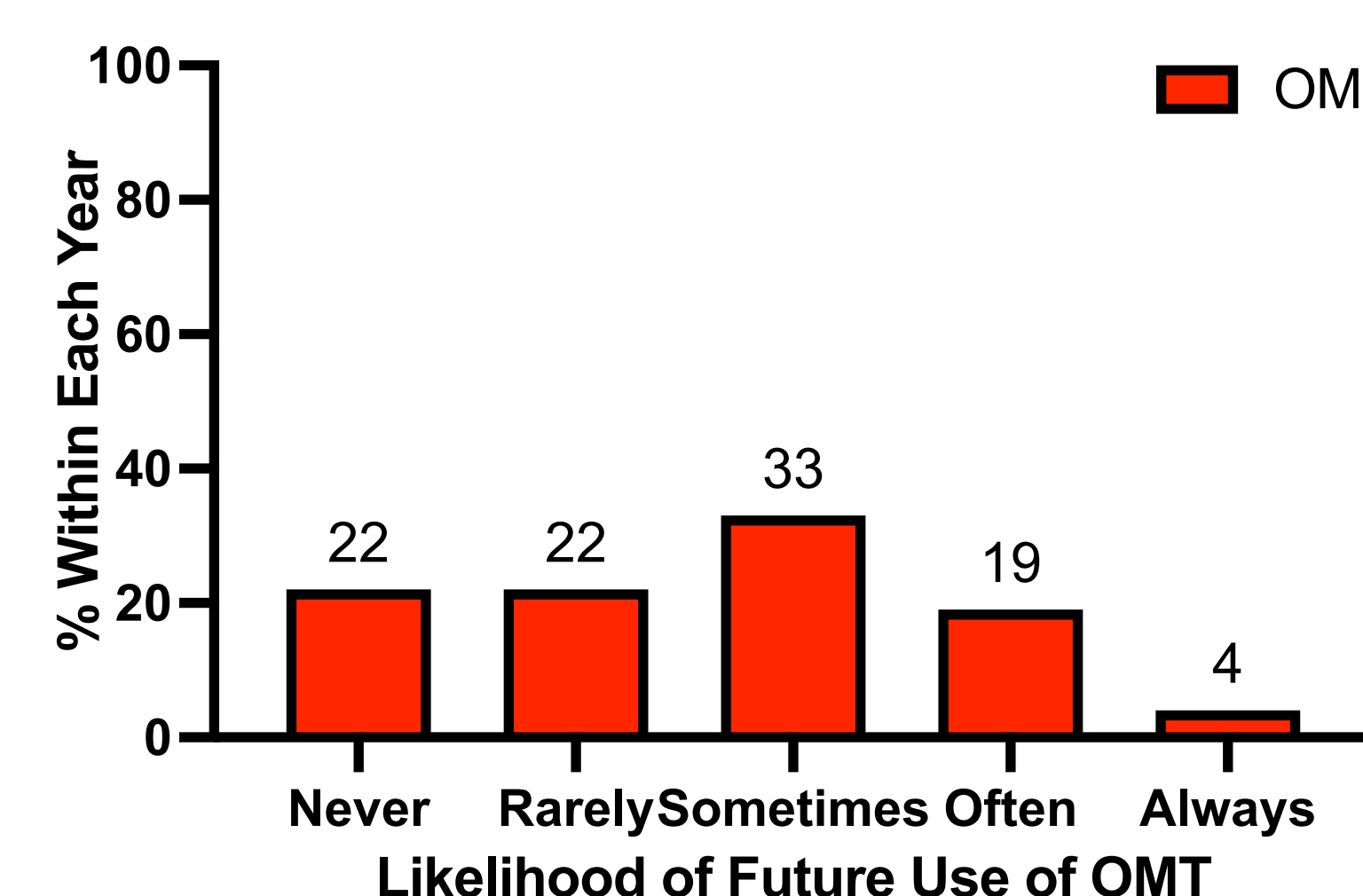


Fig 5: Self reported students' use of OMT in their future practice. No difference was seen across years.

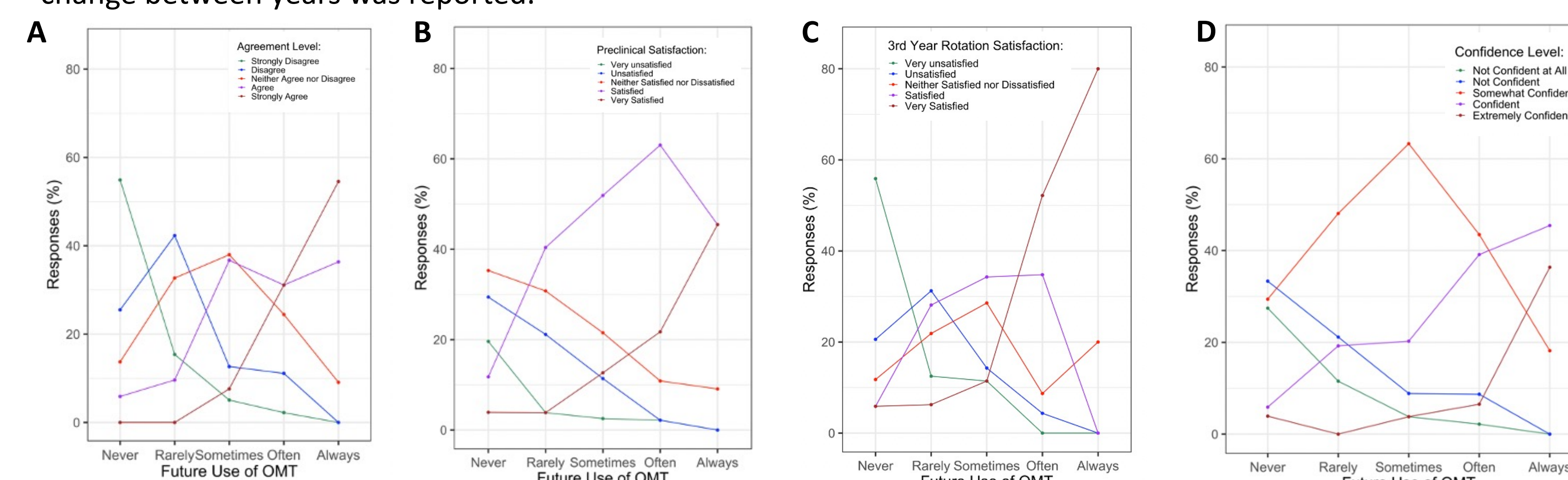


Fig 6: Factors that show an increase likelihood in utilizing OMT in future practice (A) specifically choosing an osteopathic school ( $p < 0.01$ ) (B) preclinical education satisfaction  $p < 0.01$ , (C) 3rd year rotation satisfaction ( $p < 0.01$ ), and (D) Confidence Level ( $p < 0.01$ )

## SUMMARY

- The training modalities that had the greatest positive influence were hands-on training and OMT exposure prior to medical school (Fig 3).
- The most notable negative influences on a student's perception of OMT, were clinical lecture hours (31%) and virtual learning experiences (32%) (Fig 3).
- Majority of student had an improved (33%) or greatly improved (17%) perception of OMT during medical school (Fig. 4).
- Nearly half of students reported that they would rarely (21.6%) or never (21.6%) use OMT in their future practice (Fig 5).
- Students were more likely to report they plan to utilize OMT in their future practice if they specifically chose an Osteopathic school, if they were satisfied with their preclinical education, and if they are confident in OMT.

## CONCLUSION

- OMT education should steer away from lectures and virtual learning experiences whenever possible.
- OMT education should be geared towards increasing hands on experience whenever possible, increasing positive clinical experiences for students may lead to increased utilization of OMT in future practice.
- Additional studies with a larger sample size and response rate are indicated to investigate the generalizability of our results with the goal of optimizing OMT education in medical school to increase OMT use in practicing physicians.

## REFERENCES

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